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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,265	08/01/2005	Ulrich Weber	93427	5685

24628 7590 02/16/2007  
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EXAMINER
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SPECTOR, DAVID N

ART UNIT	PAPER NUMBER
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2873

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/16/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/517,265

Applicant(s)

WEBER ET AL.

Examiner

David N. Spector

Art Unit

2873

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12/02/2004, 06/24/2005 and 08/01/2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 10-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19-44 is/are allowed.
- 6) ☒ Claim(s) 10 and 18 is/are rejected.
- 7) ☒ Claim(s) 11-17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date IDS 1: 1204/20041204.
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☒ Other: IDS 2: 0605/20050624.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 10 and 18/(10) are rejected under 35 U.S.C. 102(b) as being anticipated by Fürter et al. (U.S. Patent No. 6,590,718).**

In regard to Claim 10 Fürter et al. discloses an objective **13** comprising a plurality of lenses **121, 123, 124, 126** mirrors **125** and at least one beam splitter element **32** inserted in an objective housing **13** wherein one or more surfaces **332** located in the beam path **200** of said beam splitter element **32** are provided as correction aspherics (col. 8, ln. 66-col. 9, ln. 42; **FIG. 5**). Claim 10 is therefore anticipated by Fürter et al.

In regard to Claim 18/(10) Fürter et al. discloses an objective according to independent claim 10 from which claim 18/(10) depends; wherein it [e.g. said objective] is a projection objective for microlithography for producing semiconductor components (col. 2, ln. 4-14 and 26-28). Claim 18/(10) is therefore anticipated by Fürter et al.

***Allowable Subject Matter***

**Claims 19-44 are allowable. Claims 11-17 and 18/(11)-18/(17) are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.** The following is a statement of reasons for the indication of allowable subject matter.

In regard to Claims 11, 17, 18(11) and 18(17) the prior art taken either singly or in combination fails to anticipate or fairly suggest an objective comprising, inter alia, a plurality of lenses, mirrors and at least one beam splitter element including one or more aspherical correction surfaces; wherein said "beam splitter element is connected to manipulators that are arranged on a manipulator carrier which is permanently connected to a housing for said objective" (Claim 11, Lines 1-3); taken together in combination with the totality of particular features/limitations recited therein (CLAIMS 11, 17, 18(11) AND 18(17) EACH HAVING BEEN

REWRITTEN IN INDEPENDENT FORM INCLUDING ALL OF THE LIMITATIONS OF THE BASE CLAIM AND ANY INTERVENING CLAIMS).

In regard to Claims 12-16, and 18(12)-18(16) the prior art taken either singly or in combination fails to anticipate or fairly suggest an objective comprising, inter alia, a plurality of lenses, mirrors and at least one beam splitter element including one or more aspherical correction surfaces; wherein said one or more aspherical correction surfaces are "an entry surface of said beam splitter element, an intermediate exit surface of said beam splitter element, located offset in relation to said entry surface, and a rear exit surface, as seen in the beam direction of said beam splitter element" (Claim 12, Lines 2-4); taken together in combination with the totality of particular features/limitations recited therein (CLAIMS 12-16 AND 18(11)-18(17) EACH HAVING BEEN REWRITTEN IN INDEPENDENT FORM INCLUDING ALL OF THE LIMITATIONS OF THE BASE CLAIM AND ANY INTERVENING CLAIMS).

In regard to Claims 19-26 the prior art taken either singly or in combination fails to anticipate or fairly suggest an objective comprising a plurality of optical elements inserted in an objective housing, and at least one beam splitter element; wherein said "beam splitter element is provided with manipulators, and one or more surfaces of said beam splitter element are provided for processing as correction aspherics" (Claim 19, Lines 2-4); taken together in combination with the totality of particular features/limitations recited therein.

In regard to Claims 27-34 the prior art taken either singly or in combination fails to anticipate or fairly suggest a projection objective comprising a plurality of optical elements inserted in an objective housing, and at least one beam splitter element; wherein said "beam splitter element is provided with manipulators, and one or more surfaces of said beam splitter element are provided for processing as correction aspherics" (Claim 27, Lines 3-5); taken together in combination with the totality of particular features/limitations recited therein.

In regard to Claims 35-44 the prior art taken either singly or in combination fails to anticipate or fairly suggest a system for correcting imaging aberrations in a projection objective comprising a plurality of optical elements inserted in an objective housing, and a beam splitter; with "one or more surfaces located in the beam path of said beamsplitter being used as correction aspherics in such a way that if imaging aberrations are found, said beam splitter element is removed, said one or more surfaces located in the beam path are processed, and said beam splitter element is subsequently reinstalled" (Claim 35, Lines 4-8); taken together in combination with the totality of particular features/limitations recited therein.

***Other Remarks/Information***

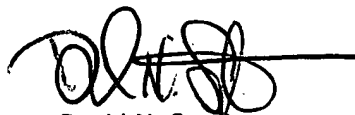
The International Search Report prepared by the European Patent Office on 01/14/2004 for the international application PCT/EP03/04772 (*e.g. which forms the basis for the instant National Stage application*) has been reviewed by the examiner and has been considered in the prosecution of the instant application.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Takahashi (U.S. Patent No. 5,969,882) provides an English-language equivalent of EP 0 869 383 A (*e.g. cited in the above-noted International Search Report for the international application PCT/EP03/04772*). In addition to being anticipated by Fürter et al. as noted above in this Office action, claims 10 and 18 of the instant application similarly appear to be anticipated by Takahashi (*e.g. col. 10, ln. 21-23; FIG. 6*).

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any other inquiry concerning this communication or earlier communications from the examiner should be directed to David N. Spector whose telephone number is (571) 272-2338. The examiner can normally be reached at this number Monday through Friday between 6:00 AM and 2:30 PM. The Official FAX number for the United States Patent and Trademark Office is (571) 273-8300.

February 9, 2007



David N. Spector  
Primary Examiner  
Art Unit 2873